

Owner or holder: A critical study of property rights in public services

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Workshop "New Competitive Tools and Smart Regulators'Policy?"

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- ▶ ↑ tools for public and private parties to work together (PFI in UK, *Contrat de partenariat* in France, *Legge Obiettivo* in Italy, ...)
⇒ Various mixes of public - private partnerships
How to choose the best repartition?
- ▶ **Literature:**
HSV [1997], Shleifer [1998], Bennett & Iossa [2004], Hart [2003], ...
⇒ Bipolar cases: either public or private!

- ▶ Property rights \Rightarrow Residual Control rights = Rights to decide and (often) to have residual benefits
- ▶ Do residual control rights constitute an appropriate tool to study contracts of public-private partnerships (PPPs)

 \Rightarrow the distinction “Decision rights” & “Payoff rights” may help to better account for PPPs?

Decision rights: rights to decide the implementation of investments

Payoff rights: rights to directly perceive the residual benefits

Different Public-private partnerships

Contracts	Residual Benefits		Decision rights	
	Public Au- thority	Private Manager	Public au- thority	Private manager

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Lease con- tract		X	X	
Management Contract	X		X	

Model: incomplete contract theory

- ▶ A contract is chosen by the public authority that allocates ownership, decision and payoff rights to public and private parties
- ▶ Two types of uncontractible investments & efforts by the manager:
 - i: increases quality
 - e: reduces costs...but impacts on social benefits:

$$B = B0 - b(e) + \beta(i) \text{ and } C = C0 - c(e) + e + i$$

- ▶ The decision holder decide the investments to be implemented

Inada conditions & $c' > 0$, $c'' < 0$, $b' > 0$, $b'' > 0$, $c' - b' > 0$

First Best level: $\text{Max } B - C \Rightarrow c'(e^*) - b'(e^*) = 1 \text{ \& } \beta'(i^*) = 1$

Concession contracts:

Contracts	Residual Benefits		Decision rights	
	Public Au- thority	Private Manager	Public au- thority	Private manager
Concession Contracts		X		X

- ▶ Strong incentives to invest in cost-reduction
 $c'(e_1) = 1$
- ▶ A priori no effort i to improve quality ...
- ▶ But as renegotiation occurs: the public authority split its gains $\beta(i)$ to create some incentives
 $\rightarrow \frac{1}{2}\beta'(i_1)=1$

Lease contracts:

Contracts	Residual Benefits		Decision rights	
	Public Au- thority	Private Manager	Public au- thority	Private manager
Lease con- tract		X	X	

- ▶ The manager has to ask for approval before implementing e and i because decision rights are attributed to the public party
- ▶ So, renegotiation occur both on e and i
- ▶ Incentives: $\frac{1}{2}(c'(e_2) - b'(e_2)) = 1$ & $\frac{1}{2}\beta'(i_2) = 1$

Management contracts

Contracts	Residual Benefits		Decision rights	
	Public Authority	Private Manager	Public authority	Private manager
Management Contract	X		X	

- ▶ The manager has no incentive because he has no payoff rights! Efforts do not change his payoff functions...
- ▶ Renegotiations occur to split the gains and give approval on e and i , which then create incentives
- ▶ Incentives: $\frac{1}{2}(c'(e_3) - b'(e_3)) = 1$ & $\frac{1}{2}\beta'(i_3) = 1$

Public provision:

- ▶ Decision rights and payoff rights to the public authority
But it is a employment relationship with subordination of the public employee...
He has to implement innovations, else he can be fired
- ▶ No incentive
- ▶ Yet, some renegotiations can occur on the proportion λ of innovations that are embodied in the human capital of the public manager

$$e_4 \text{ such as } \frac{\lambda}{2}(-b'(e_4) + c'(e_4)) = 1 \text{ and } i_4 \text{ such as } \frac{\lambda}{2} \beta'(i_4) = 1$$

By ranking the various levels of investments:

$$i^* > i_2 = i_1 = i_3 \geq i_4$$

et

$$e_1 > e^* > e_3 = e_2 \geq e_4$$

Comparison to HSV [1997]

- ▶ There is always a degree of private involvement that allows to outperform public provision of services
Hart *et. alii.* [1997]
- ▶ **What about public sector?** The scope of the model: services with a limited adverse effect ($c'(e) - b'(e) > 0$)
- ▶ Illustrations:
 - * Water distribution, urban warming, garbage collection,....
 - * **Management of prisons:** out of the analysis that focuses on services with a limited adverse effect ($c'(e) - b'(e) > 0$)